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PEOPLE AND NATURE IN AFRICAN CITIES: THE ROLE OF URBAN INFORMALITIES



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In Africa, informal urbanisation can transform sustainable development by leveraging the contributions of nature. Six strategies for public officers and business planners can incentivize gains from the informal and sustainable use of biodiversity, and boost the quality of life of urban populations.

Since the 1980s, urbanisation in Africa is rooted in colonial templates that involve the over exploitation of natural capital and the loss of biodiversity, both crucial economic assets. As they grow, cities, especially intermediary ones (50,000 up to 1 m. inhabitants), overlap with biodiversity hotspots and key protected areas.

Since African cities are characterized by economic, spatial and governance-related informality, the social innovation, technologies and new forms of governance they are developing can help change this trend. This includes developing indicators, generating sustainable urban development blueprints and bankable projects. Thanks to global, continental and subregional networks and centres of expertise, such as the African Centre for Cities,¹ United Cities and Local Governments (UCLG) Africa² and ICLEI's Cities' Biodiversity Centre,³ strengthening the African model of sustainable urban planning is possible and could significantly contribute to the implementation of The Biodiversity Plan.

Analyses show that cities are essential for achieving 65% of The Biodiversity Plan's targets. For instance, being closer to people, businesses and decision-makers, measures taken by local governments are relevant to the economic and finance sectors. Government officers at the local level are also more flexible to act as generalists. Since they cannot set up specific units to address environmental issues, they tend to see problems and solutions in an integrated manner and are better positioned to contribute to the effective implementation of The Biodiversity Plan.

“WHEN WE THINK ABOUT SUSTAINABLE URBAN DEVELOPMENT, WE MUST NOT LOSE SIGHT OF THE FACT THAT A CITY IS A PROJECTION OF SOCIETIES ONTO A GIVEN TERRITORY. WE MUST NEVER CEASE TO SEE THE CITY AS THE SPATIAL AND MATERIAL EXPRESSION OF A SOCIETY'S SOCIAL STRUCTURE, VALUES, ASPIRATIONS, AND CONFLICTS”.

- Professor Albert Bienvenu Akoha, National Universities of Benin

1. THE TWO CITIES PARADOX: UNDERSTANDING URBAN INFORMALITIES

Urban informalities are the processes of urban planning and development – and their associated flows of investment, goods and services – that do not follow or comply with official rules. They do not fit into the official urban planning and construction toolbox which is used by public and private developers. At the same time, official urban design languages, technologies, processes and materials are perceived as being of better quality and their use is often incentivized. This has led to the two cities paradox. This means that there are two overlapping, competing and incompatible sets of urban and territorial rules and mechanisms, including patterns in financing, design and development.

Informalities translate into social, environmental, political, cultural, and economic networks that co-exist with the official city. Often, they are better at addressing the needs of the urban and peri-urban communities. It is possible for both systems to interact positively. For instance, they can make use of land-rights and holdings related to traditional authorities and users.

For sustainable urbanisation to happen, local and subnational governments have to change the way in which they think about and respond to informality in African cities. The three themes and six principles shown in chapters II to IV aim at understanding informalities as an opportunity for positive change. Several examples help illustrate how this is happening in cities across the African continent.

2. RESTORING AND REVITALISING URBAN SPACES

Restoring and revitalising cities' functions as planning centres through decentralisation

Although it lives alongside an informal network of networks that provide solutions, the official city has always had more advantages in subsidies and incentives. By bridging this divide, it is possible to gradually transfer the capacity of informalities for development and planning to municipalities. Decentralising development needs to be connected to appropriate taxation systems in order to give local and regional governments the capacity to redirect benefits to the local level. For this to happen, each community must collectively define where it wants to develop its know-how.

Two examples help illustrate the potential benefits of restoring cities' functions:

- + Clustering mutually beneficial businesses allows for green development by capitalising the value of land and resources. This includes systems for planning and management, anticipation and early warning, adaptation and resilience to drought.
- + The gradual formalisation of informal transportation systems that tend to be more flexible and built on both territorial and cultural conditions has allowed for progress.

New Cartographic Approaches to Identify Trends and Opportunities for Sustainable Urbanization

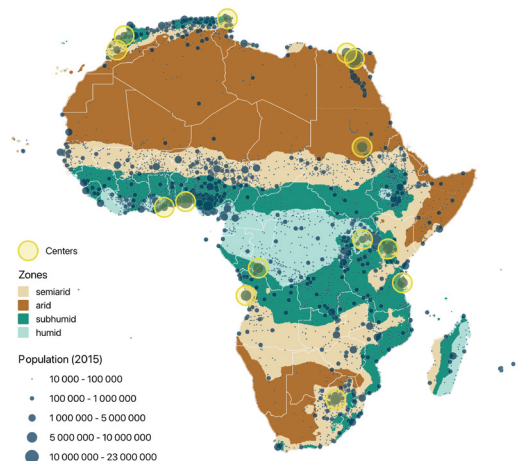
The Sahel and West Africa Club (SWAC), an independent, international platform hosted by the Organisation for Economic Co-operation and Development (OECD), aims at improving the understanding of ongoing transformations in the region, including urbanisation. Through a bottom-up approach, it uses geo-referenced maps and satellite images to map centres with more than 10,000 inhabitants that have no unbuilt space. This helps incorporate the rapid sprawl of peri-urban growth that results in conurbations.

The case of Cairo is a good example. SWAC's assessment for the city's extended urban networks reaches almost 23 m inhabitants, higher than in other sources. African modes of conurbation become increasingly important as city clusters. Additionally, they are the backbone of many successful economies. Reducing barriers could therefore facilitate the development of urban economies.

Generating productive urban ecosystems through the restoration of urban green and blue infrastructure

At the frontiers of urban expansion, green and blue infrastructure can either be put to long-term service or allowed to degrade beyond restoration. In areas in and between cities, local communities are still using green areas, wetlands, forests, and low-intensity agricultural and livestock zones for water, food and energy security. It is important to find ways to value these areas where nature-based solutions are one of their main assets. For instance, Kigali's urban landscape⁴ has been meticulously planned, with significant efforts in rehabilitating wetlands and creating eco-parks.

Urban agriculture and the local approaches designed and built in cities and conurbations are part of the solution. Some aspects of traditional land-use can be creatively blended with innovation. Abandoned urban areas can be converted into ecosystems that welcome newly arrived cultures and their traditional knowledge.



Map: Distribution of Major African Centres of Expertise, Patino/Anderson, 2024



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1 <https://www.africacentreforcities.net/>
 2 <https://www.uclga.org/>
 3 <https://cbc.iclei.org/>
 4 <https://greencitykigali.org/>; <https://www.fairplanet.org/story/green-city-kigali-inside-africas-first-sustainable-city/>
 5. Luc Gnacadja, "#Porto_Novo, #VilleVerte: un projet emblématique vers un avenir durable et résilient", February 2024, [Video: Projet "Porto-Novo, Ville Verte": Cérémonie d'inauguration de la promenade piétonne et des voies] https://fr.linkedin.com/posts/luc-m-c-gnacadja-43388426_projeto-porto-novo-ville-verte-c3%A9%CC%9Amonie-activity-7152677363082829824-NF80 and Gnacadja, Hillel, 2024
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 10. www.fmdv.net
 11. <https://ranyaka.co.za/what-we-do/>



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The Role of African Centres of Expertise in the Reinforcement of Sustainable Urban Planning

Currently, there are over 50 centres of expertise and technology in Africa that can help drive the required transformative reforms of urban development. They work on various subjects and support different perspectives. Close to half of them are global agencies, others work at a regional or sub regional level. Although most of these centres are connected and cooperating, there are no effective coordination efforts.

Certain trends stand out in the location of the centres of expertise (see map). Many are situated in larger urban centres, acting as multidisciplinary and transcultural laboratories, and as a reference for learning institutions or think tanks. This represents a risk of not sufficiently engaging small and medium-sized cities in developing green approaches for urbanisation.

Based on the main centres and agencies identified, the OECD/SWAC initiative plotted agro-ecological zones on urban agglomerations and noted their location. The distribution of centres can be associated with larger urban agglomerations and cultural and historical cooperation. While there seems to be a relatively good distribution across large agro-ecological systems, gaps between 30 and 50% can be identified depending on the granularity of analysis.

exposed the digital divide, particularly in peripheral informal settlements. This is a threat to the development of a skilled workforce that can drive the digital economy.

These challenges have also catalysed a wave of social (more than technological) innovation among Africa's youth. In Africa's urban centres, this has also resulted in community use of decentralised information. A start-up in Kenya "is pioneering solutions that address these infrastructural gaps".⁶ The creative use of social media show how Africa's youth are "leveraging information technology to transform digital roadblocks into high-ways of connectivity."⁷ Education technology start-ups⁸ are providing learning materials to learners in rural and urban areas, slowly transforming the educational landscape and preparing the next generation for the digital economy in Africa.

Digital transformation⁹ can also support farmers' adaptation and resilience to climate change by providing access to agricultural extension services, market information, weather forecasts, and early warning systems. Solutions based on digital infrastructure and services are emerging and include regional and community digital centres. Innovation is both social and technological. It is about reconnecting the functions of the original city, valuing endogenous know-how and traditional knowledge that provide such efficiencies in informal settings.

3. INNOVATION PLANNING AND USING TECHNOLOGIES AS SOLUTIONS

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De-coupling the response to the urban infrastructure and services gap from carbon-intensive technologies

Africa can take advantage of its infrastructural gap to find alternatives to the usual carbon-intensive technologies. Therefore, **planners and designers need to rethink their blueprints, and tinker with existing and informal approaches. They also need to invent models better adapted to the policy environments and technological scenarios emerging across the continent.**

Some African cities are actively addressing urban infrastructure and service gaps through innovative planning and strategies that emphasize sustainability, resilience, and community involvement. Facing several challenges linked to rapid urbanisation, the Porto-Novo Green City project⁹ addressed ecological strain, pollution, inefficient waste management, and exacerbated vulnerability to climate phenomena. It revitalized the lagoon shoreline by creating a promenade, and strengthened the administrative capabilities of municipal officials. Enhancements included road construction, sanitation improvements, urban reforestation, and public lighting.

Incentivizing the use of local materials and designs can range from upscaling locally-owned and low-carbon technologies to incorporating local earth-compressed blocks in housing and infrastructure. For this to happen, the flow of goods and services must be observed to identify and replicate the most efficient processes. This also includes improving access to infrastructure and services in peripheral areas and slums.

Combining social and technological innovation through enabling environments

Digital inequality is a pressing concern which is further exacerbated by the lack of reliable electricity, infrastructural gaps and the lack of access to education. The response to the COVID-19 pandemic on urban economy

"LOCAL AUTHORITIES ARE CLEARLY AWARE OF THE CONTRIBUTIONS OF NATURE TO THEIR LIVELIHOODS. IN MY CAREER, I HAVEN'T FOUND A SINGLE AFRICAN MAYOR UNAWARE OF THE CENTRAL ROLE OF NATURE FOR CITIES"

- Jean-Pierre Elong Mbassi, Secretary General, UCLG Africa

4. LAND TENURE AND INNOVATIVE FINANCE

Using financial flows and redirecting investments to support nature-positive approaches

Innovative and reliable efforts must be made to redirect the global and regional financial resources influencing today's urban growth. This must be done through **carefully planned and strategic decentralisation, a key agent of change for sustainability that can mobilise settlements in Africa.** This includes creating larger and better pipeline programmes, and offering investment options for innovative start-ups that incentivise the formalisation of gains and lessons learned from informality towards services and benefits.

Transitions in banking need to readjust, formalize and support informalities. Hand-held credit platforms, small-scale credit, and direct payments are more common in Africa. At the same time, IT and telecommunication systems are changing the game. These kinds of initiatives can further learn from the social and business-enterprise approach of the Global Cities Development Fund (FMDV)¹⁰, Initiated by members of UCLG and METROPOLIS. Its mission is to develop and promote investment and financing solutions for urban development.



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At the national level, access and benefit sharing of biological resources is about allowing the access to these resources in the places and territories that hold them, while ensuring that benefits are equitably shared. How can these mechanisms be accelerated at territorial levels and across the urban-rural divide? A few successful approaches include i) mortgage loans secured by ecosystem restoration programs; ii) municipal development bonds for green infrastructure secured by unique access to wetlands, rivers and mountains; iii) parametric insurance against floods and droughts; iv) mixed or blended funds committed to development plans with lowest impacts or measurable contributions to micro-electrification, water, sanitation or transportation infrastructure.

Land tenure: applying participatory approaches to the valuation of benefits from natural resources

This implies developing land tenure systems, and reforming land finance to provide value in sustainable land management. The Ranyaka collective¹¹ was established in South Africa as a non-profit urban planning consultancy to pursue tangible, positive socio-economic impacts in a way that actively engages “the heroes who are already there”. They work on community profiling, on the co-design of sustainable neighbourhood plans, and towards a development strategy. This helps unlock investment opportunities for funders and donors who pursue sustainable, measurable change, and build partnerships with stakeholders across multiple sectors.

Local and subnational governments and their partners must reform land finance and improve sustainable land management. This can also include public certification of access rights to land, coast or natural resources including ecosystems, and facilitating the transition of these registers into legally certifiable ownership. Risk reduction is a known capitalising factor. This kind of informal valuation can lead to a workable compromise between tax-generating development, social housing needs and green open areas that fulfil the social functions, meeting residents’ needs.

5. SAFEGUARDING THE ADVANTAGES OF INFORMALITY

The distribution of operation costs needs to be carefully considered, so as to not favour those with resources and connections, weakening informal cultural expressions and community identities. It should also avoid creating increased taxes, fees or regulatory compliance burdens, affecting low-income residents and small businesses. Formalization systems cannot neglect community-based solutions and informal

networks, as this can drive informal activities underground, creating new social and economic problems. It is important to keep the interests of all involved communities, whether officially represented or not, and to consider the root causes of informality. If those principles are not considered, formalization, even partial, can face resistance from vested interests, bureaucratic inertia, and political opposition.

The carefully balanced and gradual formalization of urban informalities needs to focus on reducing poverty, inequality, and urban fragmentation, thus creating more resilient, inclusive, and sustainable cities. Any system proposed for this transition needs to be flexible, cost-effective and simple. Formalization risks that rigidify urban spaces and economies can lead to eviction of informal settlers, street vendors, or small businesses, disrupting communities and livelihoods.

“SOLUTIONS IN INFORMAL AREAS CAN BE WOVEN INTO AN AFRICAN URBAN MODEL FOR INCLUSIVENESS TO CREATE A CITY THAT REMOVES BOUNDARIES AND EDGES. IT IS WORTH NOTING THAT MOST OF THE FORMAL AND PLANNED PARTS OF THE CITY RELY ON THE INFORMAL/UNPLANNED AREAS FOR MANY SERVICES”.

- Professor Heba Allah Khalil, Cairo University



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